

WHAT IS CLAIMED IS:

1. An automatic address management method in a system-wide network made up of a core portion with fixed addresses having a static already allocated interconnection and a terminal portion with indefinite addresses, dynamically connected to said core portion, in which an upper-lower order relation is established such that an upper order server allocates an address block to a lower order server and the lower order server returns the address block to the upper order server, wherein, when said terminal portion is to be connected to said core portion, said method comprises:

(a) a step in which a representative server with a link to outside contained in said terminal portion attempts to be connected to a segment contained in said core portion;

(b) a step in which said representative server requests allocation of an address block to an upper order server supervising said segment; and

(c) a step in which said representative server distributes an address block in said terminal portion.

2. The automatic address management method according to claim 1 wherein, in said step (a), said representative server requests connection using an already known address owned by an upper order server of said segment.

3. The automatic address management method according to claim 2 wherein, in said step (a), said representative server requests acquisition of its own IP address.

4. The automatic address management method according to claim 3 wherein, in said step (a), an address is automatically allocated to said representative server in

accordance with DHCP (Dynamic Host Configuration Protocol) or IPCP (Internet protocol Control Protocol).

5. The automatic address management method according to claim 1 wherein if, in said step (b), an upper order server receiving an address block allocation request does not own a sufficient address pool, an address block allocation request is recursively issued to a further upper order server.

6. The automatic address management method according to claim 1 wherein, in said step (c), an address block is distributed to each server in said terminal portion in accordance with DNCP (Dynamic Network Configuration Protocol).

7. In a system-wide network made up of a core portion with fixed addresses, having a static already allocated interconnection and a terminal portion with indefinite addresses, dynamically connected to said core portion, in which an upper-lower order relation is established such that an upper order server allocates an address block to a lower order server and the lower order server returns the address block to the upper order server, a router functioning as a representative server having a link for outside for said terminal portion; said router comprising:

(a) connection means in which a representative server with a link to outside contained in said terminal portion attempts to be connected to a segment contained in said core portion;

(b) address acquisition means in which said representative server requests allocation of an address block to an upper order server supervising said segment; and

(c) address distribution means in which said representative server distributes an address block in said terminal portion.

8. The router according to claim 7 wherein said connection means (a) requests connection using an already known address owned by an upper order server of said segment.

9. The router according to claim 8 wherein said connection means (a) requests acquisition of an IP address of the representative server itself.

10. The router according to claim 9 wherein said connection means (a) has an address of said representative server automatically allocated in accordance with DHCP (Dynamic Host Configuration Protocol) or IPCP (Internet protocol Control Protocol).

11. The router according to claim 7 wherein, if an upper order server receiving an address block allocation request from said address acquisition means (b) does not own a sufficient address pool, an address block allocation request is recursively issued to a further upper order server.

12. The router according to claim 7 wherein said address distribution means (c) distributes a nab to each server in said terminal portion in accordance with DNCP (Dynamic Network Configuration Protocol).

13. A program furnishing medium for furnishing a computer program in a tangible and computer-readable form, said computer program being such a program by means of which a computer system connected to a system-wide network made up of a core portion with fixed addresses having a static already allocated interconnection and a

terminal portion with indefinite addresses dynamically connected to said core portion, in which an upper-lower order relation is established such that an upper order server allocates an address block to a lower order server and the lower order server returns the address block to the upper order server, operates as a router, wherein, for assuring automatic address management when said terminal portion is to be connected to said core portion, said computer program comprises:

- (a) a step in which a representative server with a link to outside contained in said terminal portion attempts to be connected to a segment contained in said core portion;
- (b) a step in which said representative server requests allocation of an address block to an upper order server supervising said segment; and
- (c) a step in which said representative server distributes an address block in said terminal portion.

14. The program furnishing medium according to claim 13 wherein, in said step (a), said representative server requests connection using an already known address owned by an upper order server of said segment.

15. The program furnishing medium according to claim 14 wherein, in said step (a), said representative server requests acquisition of its own IP address.

16. The program furnishing medium according to claim 15 wherein, in said step (a), an address is automatically allocated to said representative server in accordance with DHCP (Dynamic Host Configuration Protocol) or IPCP (Internet protocol Control Protocol).

17. The program furnishing medium according to claim 13 wherein if, in said step (b), an upper order server receiving an address block allocation request does not own a sufficient address pool, an address block allocation request is recursively issued to a further upper order server.

18. The program furnishing medium according to claim 13 wherein, in said step (c), an address block is distributed to each server in said terminal portion in accordance with DNCP (Dynamic Network Configuration Protocol).

19. A program transmitting signal for transmitting a computer over a wire or a radio path, said computer program being such a program by means of which a computer system connected to a system-wide network made up of a core portion with fixed addresses having a static already allocated interconnection and a terminal portion with indefinite addresses dynamically connected to said core portion, in which an upper-lower order relation is established such that an upper order server allocates an address block to a lower order server and the lower order server returns the address block to the upper order server, operates as a router, wherein, for assuring automatic address management when said terminal portion is to be connected to said core portion, said program transmitting signal comprises:

- (a) a step in which a representative server with a link to outside contained in said terminal portion attempts to be connected to a segment contained in said core portion;
- (b) a step in which said representative server requests allocation of an address block to an upper order server supervising said segment; and

(c) a step in which said representative server distributes an address block in said terminal portion.

20. The program transmitting signal according to claim 19 wherein, in said step (a), said representative server requests connection using an already known address owned by an upper order server of said segment.

21. The program transmitting signal according to claim 20 wherein, in said step (a), said representative server requests acquisition of its own IP address.

22. The program transmitting signal according to claim 21 wherein, in said step (a), an address is automatically allocated to said representative server in accordance with DHCP (Dynamic Host Configuration Protocol) or IPCP (Internet protocol Control Protocol).

23. The program transmitting signal according to claim 19 wherein if, in said step (b), an upper order server receiving an address block allocation request does not own a sufficient address pool, an address block allocation request is recursively issued to a further upper order server.

24. The program transmitting signal according to claim 19 wherein, in said step (c), an address block is distributed to each server in said terminal portion in accordance with DNCP (Dynamic Network Configuration Protocol).